Poster 39. ALLELOPATHIC EFFECTS IN DINOFLAGELLATES: A CASE STUDY OF THE BENTHIC GENUS *Ostreopsis* AND TWO NON-TOXIC SPECIES FROM THE GENERA *Prorocentrum* AND *Coolia*.

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ABSTRACT

The genus *Ostreopsis* includes several toxic species that can develop blooms in benthic ecosystems, with potential harmful consequences to the human health and marine invertebrates. Despite of this, little is known about the allelopathic effects caused by these organisms in other co-occurring microalgae. The aim of this study was to study these effects in mixed cultures of *Ostreopsis* and two benthic genera of dinoflagellates (*Coolia* and *Prorocentrum*), when sharing the same environment, under controlled conditions. The potential allelopathic effects were studied in two non-toxic species (*Coolia monotis* and *Prorocentrum elegans*) exposed separately to the clarified medium and cells of two strains of *Ostreopsis*. For this purpose, growth rates of each species, toxin profiles and toxin content per cell were determined by LC-HRMS in mixed cultures. The obtained results are discussed in terms of the interespecific differences observed in toxin contents for both *Ostreopsis* strains and the inhibitory effects in both *Coolia* and *Prorocentrum* cultures.

Keywords: *Ostreopsis, allelopathy, ovatoxins, PLTXs, interespecific effects, inhibitory effects*

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